

To: Natural Gas Distribution Operators**From: Glynn Blanton, Chief****Note from the chief...**

This update contains information you will need in order to comply with the API 1162 public awareness requirement. Please read the information carefully and let us know if you have any questions. Also, for this second update of the year, I have asked each of the engineers to write an article on a subject of their choice--something they feel needs special attention or will help make your job a little easier.

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Public Awareness Program Documents**...by Glynn Blanton**

Last year, the US Congress appropriated funds to the Pipeline & Hazardous Materials Safety Administration (PHMSA) for an outside contractor to review all interstate transmission company Public Awareness Program documents. PHMSA has recently requested state agencies to consider partnering with them on this review to help provide a uniform assessment of the documents and provide a report to congress on the program. The Tennessee Regulatory Authority (TRA) Gas Pipeline Safety Division has agreed with (PHMSA) to allow a Clearinghouse contractor to perform a review of all Tennessee natural gas distribution system RP 1162 Public Awareness plans. This decision was made on March 30, 2006.

In the coming weeks, but no later than May 30th, PHMSA will release instructions to all Tennessee natural gas and interstate transmission operators on where to file the public awareness written plans. This announcement will be made via the federal advisory bulletin. It is anticipated that you will be able to file the plan electronically, by fax or mail. For your convenience, the filing or website address will be posted on the TRA website at: www.state.tn.us/tra.

All public awareness written plans are due to be available for review by June 20, 2006. The Clearinghouse contractor will review the written public awareness document filed to determine if all elements in the document meet the Recommended Practices (RP1162) standard. If elements are missing or not available in the document, the Clearinghouse contractor will contact our agency and advise us of this finding(s). Since we will have access to your filed document by the internet, we may contact you by telephone or during a gas safety inspection to request submission of additional information or to correct the area of concern.

The use of a Clearinghouse contractor to review the public awareness document will not prevent our agency from the enforcement of the rule. It is very important that all documents be filed with the Clearinghouse contractor and be available for our review during the gas safety inspection.

Master metered system operators will not be required to create an "RP1162-style" public awareness program. They will, however, be required to inform their customers on hazards associated with unintended releases, action taken by the operator to prevent accidents and mitigate the consequences of accidents when they occur, how to recognize and respond to a pipeline emergency, how to assist in preventing pipeline emergencies by following safe excavation practices and reporting unauthorized digging or suspicious activity. These requirements can be accomplished by advertisement documents or brochures provided by the local distribution companies. We encourage you to have a meeting with the local master meter system operator in your area and provide them with this information.



Pipeline Facilities and Component Mapping

...by Eric Cherry

One of the most important aspects related to natural gas pipeline safety is the knowledge of the pipeline facility and component locations. Many times an operator has spent years with the gas distribution company and has either installed or worked with the distribution pipeline facilities and components over many years. This knowledge is invaluable regarding the operation, maintenance and emergency procedures associated with natural gas pipeline safety, and this knowledge should be translated into written maps and diagrams. Some larger operators have incorporated computer generated maps with global positioning coordinates. Some smaller operators may have paper format maps and corrosion maps locating pipeline facilities and cathodic protection components.

Many times, the weakest link in a pipeline facility is the valves or fittings. The level of detail with regard to facility mapping and component diagrams are many times related to the complexity of the pipeline facility and its components. Future risk based regulatory compliance may rely upon the analysis of the gas pipeline facilities and components, their location and their potential risk to people and property. Knowledge of the operator's pipeline facilities and components is invaluable and should be translated into a mapping format which can be enhanced and updated as necessary.

F-7100.1-1 Annual Reports

...by Clifton Phillips

As you already know, your Annual Reports (Form PHMSA F-7100.1-1) are due to the PHMSA on March 15 and the Tennessee Regulatory Authority April 15 of each calendar year. If you have not reported this form, you will be receiving a call from us. You may also be contacted if it is determined you have filled out any of the form incorrectly. All of the information on this form is used by our office, and we want to be sure we are receiving accurate information.

Following, for future reference, are some helpful hints to assist you in correctly filling out this form:

- Diligently read the instructions for filling out the form. These instructions can be found on the Office of Pipeline Safety home page, <http://ops.dot.gov> by clicking the FORMS tab or OPS FORMS section of the ONLINE LIBRARY.
- Check all math.
- Collect accurate leak data throughout the year. According to the instructions, "A leak is defined as an unintentional escape of gas from the pipeline. A non-hazardous release that can be eliminated by lubrication, adjustment, or tightening, is not a leak." Examples of leaks may be third-party damage, damage by employees, relief vent malfunction, corrosion leak...etc.
- Double check all math.
- When calculating unaccounted for gas, be sure to appropriately adjust for such factors as variations in temperature, pressure, meter-reading cycles, or heat

content; and calculable losses from construction, purging, line breaks, etc.

- Triple check all math.
- Feel free to add comments in the Additional Information category. Examples may be clarification of leaks in the 'other' category or indication of cast iron/ bare steel replacement plan.
- Take one last look at your math.
- Finally, this form may see some changes in the years to come, therefore please be sure to complete the most recent revision of this form.

If you ever have any questions feel free to contact the Gas Pipeline Safety Division.

System Knowledge and the Distribution Integrity Management Program (DIMP)

...by Larry Borum

As you are aware, work is ongoing at the federal level to complete the requirements for an integrity management program for natural gas distribution systems. Knowing from past experience, that the workload for most, if not all, of you seems at times to be overwhelming, advanced preparation may be beneficial in managing additional responsibilities or requirements. The purpose of this article is to provide some food for thought that may be helpful in early preparation for the distribution integrity management program.

As a responsible operator, each one of you have become very familiar with the characteristics of your natural gas distribution system over the years. It is not possible to predict with any certainty what form an integrity management program for distribution systems might take. However, there are basic characteristics of natural gas distribution systems that can be identified and used as indicators in the evaluation of the condition or integrity of the system. Some of the basic characteristics of a natural gas distribution system are as follows:

- Age of gas distribution pipe.
- Pipeline material and associated specifications.
- Location of distribution pipe.
- Location of a particular type of pipe or appurtenance that has been found to be troublesome in other systems due to problems in the manufacturing process, material failure, etc.
- Installation methods.
- Pipeline protection methods.
- Locations where other utilities cross gas mains or are in close proximity to mains.

In addition, based on requirements of Part 192 of the Minimum Federal Safety Standards, Gas Pipeline Safety Division engineers have emphasized the documentation of operation and maintenance activities and maintenance of associated records. These records could prove invaluable in evaluating and documenting distribution system condition. A list of some

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of the records that could be used to further evaluate the condition of the distribution system is as follows:

- System mapping.
- Leak survey records.
- Cathodic protection survey records.
- Exposed pipeline inspection records for external condition and internal condition when pipe has been removed.
- Work order records.

As time allows, it may be beneficial to begin reviewing your system and noting areas of concern relative to system condition. Indications of system condition may be available through further review of system records and work orders. The operator should take advantage of any opportunity to inspect exposed system piping, record the condition and take appropriate measurements for documenting the location of the inspection. It may also be beneficial to stress the importance of closely observing and documenting the condition of pipe and appurtenances whenever the opportunity is presented.

Emergency Valve Selection

...by Brad Williams

Many natural gas operators are currently struggling with the maintenance demands of servicing their gas system valves. As natural gas systems grow over time, many have found themselves with an unwieldy number of valves to maintain on an annual basis. The question I get from operators: "Must I turn **all** my valves each calendar year?" My response is, "You tell me."

§192.747 states, "(a) Each valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year. (b) Each operator must take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve. With the Rule as a foundation, how does an operator select the appropriate valves to maintain on an annual basis?

The intent of §192.747 is to require an operator to minimize the potential hazard to the public by installing and maintaining on an annual basis enough valves so that it can quickly and safely control the flow of gas in an emergency. So, how many valves are enough? Well, only an analysis of the operator's system will reveal the number of valves that are needed. Therefore, there is no magic number.

The operator has the burden of analyzing its own system for the appropriate number of valves to maintain. Generally, emergency valves should be maintained:

1. At each pressure regulating station,
2. On principal lines to and within business districts or class 4 locations.

3. In sufficient numbers within the distribution system based on:
 - Number of customers
 - Volume of gas
 - Environment
 - Response time/valve accessibility
4. Anywhere else necessary based on:
 - Leak history
 - Failures
5. Other criteria to consider:
 - operating pressure,
 - the size of the mains,
 - the local physical conditions,
 - the size of the system,
 - accessibility of each valve,
 - and the capability of the operator to handle an emergency.

I've often heard it said, "Every valve becomes a critical valve in an emergency." That may be so for some systems, but for most systems it doesn't have to be. As long as the operator has carefully chosen valves to use in an emergency in accordance with the criteria listed above, the actual number of valves... 'the use of which may be necessary for the safe operation of a distribution system...' may only be a fraction of the total number of valves in a given gas system.

Welding Procedures and Welder Qualification

...by Tom Woosley

Minimum Federal Safety Regulations describe specific requirements for welding procedures and how welders are to be qualified. There seems to be some confusion as to the meaning of these requirements. Hopefully this writing will provide some clarity to the issue.

MFSS requires that welding be performed in accordance with procedures qualified under API or ASME standards. This means that a procedure must be developed, a specimen weld performed utilizing that procedure, and the specimen subjected to destructive tests as specified in the utilized standard. Test results showing successful completion of the destructive tests should be kept on file with the written procedure. This qualified procedure should be utilized for all welding in construction or repairs where applicable. A pipeline operator who relies on a contractor to provide welding procedures should review those procedures to determine their suitability for the project under consideration. If the procedure is found to be acceptable, it should be adopted for use, and a copy placed on file including the qualifying test results.

Depending on a number of variables, an operator may be required to have more than one qualified procedure. Wall thickness, Specified Minimum Yield Strength (SMYS) of the material, welding process, and diameter are some variables that may dictate a need for more than one procedure. For example, if a pipeline system is composed of X-42 piping and has only established welding procedures for that material, a

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procedure would have to be written and qualified for use on higher yield strength materials such as X-52 or X-60.

Many individuals utilize state technology centers or other private testing labs to perform welder qualification tests. Welders who are performing these tests will have to create a specimen weld utilizing the qualified procedure they intend to use. This specimen will be destructively tested under guidelines in API 1104 or ASME Standards in order to qualify the individual for welding high or low stress pipelines. Individuals who weld low stress pipelines only (less than 20% SMYS) may qualify under Appendix C of 49 CFR, Part 192. Anyone who has qualified under Appendix C only will have to perform an additional qualification test under API or ASME standards to weld pipelines that are intended to operate above 20% SMYS.

It is important that welders taking a qualification test utilize a qualified procedure. Most pipeline operators statewide have submitted their qualified procedure for our files. If you have not submitted or have revised or added new procedures, please submit them to our office. Welder test results sent to this

office that do not indicate a qualified procedure was used or inadequate information is provided will be held until clarification is provided or the individual successfully completes a test and proper documentation is received. Our office reviews all welding test information and a welding card will not be issued unless proper test standards have been met.

**-From the Federal Register-
Drug Testing Rate for 2006**

Each year pipeline operators randomly select employees to test for prohibited drugs. The number of selections may not be less than the minimum annual percentage rate PHMSA determines, either 50 percent or 25 percent of covered employees, based on the industry's positive rate of random tests. In accordance with applicable standards, PHMSA has determined that the positive rate of random drug tests reported by operators this calendar year for testing done in calendar year 2005 is less than 1.0 percent. Therefore, in calendar year 2006, the minimum annual percentage rate for random drug testing is 25 percent of covered employees. Dates: Effective January 1, 2006 through December 31, 2006.

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